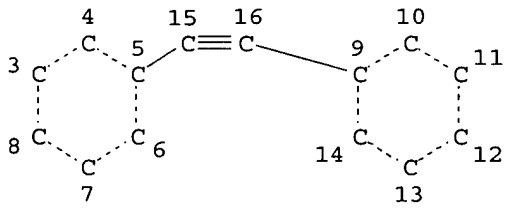
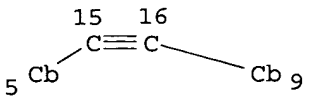
Nwaonicha
10/6/2007


```
=> fil reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 08:35:47 ON 16 SEP 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 SEP 2005  HIGHEST RN 863180-19-2
DICTIONARY FILE UPDATES:  14 SEP 2005  HIGHEST RN 863180-19-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> => d l9 que stat;fil medl,biosis,embase,caplus;s l9
L1              STR
```




```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE


Prepared by: Mary Hale @2-2507 Rem Bldg 1D86
```

L6 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY AT 5
GGCAT IS PCY AT 9
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L9 223 SEA FILE=REGISTRY SSS FUL L6 AND L1

100.0% PROCESSED 46395 ITERATIONS 223 ANSWERS
SEARCH TIME: 00.00.01

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	167.04	167.25

FILE 'MEDLINE' ENTERED AT 08:41:29 ON 16 SEP 2005

FILE 'BIOSIS' ENTERED AT 08:41:29 ON 16 SEP 2005

FILE 'EMBASE' ENTERED AT 08:41:29 ON 16 SEP 2005

FILE 'CAPLUS' ENTERED AT 08:41:29 ON 16 SEP 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

L10 0 FILE MEDLINE
L11 0 FILE BIOSIS
L12 0 FILE EMBASE
L13 133 FILE CAPLUS

TOTAL FOR ALL FILES
L14 133 L9

=> s l14
L15 0 FILE MEDLINE
L16 0 FILE BIOSIS
L17 0 FILE EMBASE
L18 133 FILE CAPLUS

TOTAL FOR ALL FILES
L19 133 L14

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

=> s semiconductor? or thin film transist? or gate dielectric or self assembled monolayer or nonfluorinat? polymer or siloxane polymer
L20 4656 FILE MEDLINE
L21 2416 FILE BIOSIS
L22 5197 FILE EMBASE
L23 556149 FILE CAPLUS

TOTAL FOR ALL FILES
L24 568418 SEMICONDUCTOR? OR THIN FILM TRANSIST? OR GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT? POLYMER OR SILOXANE POLYMER

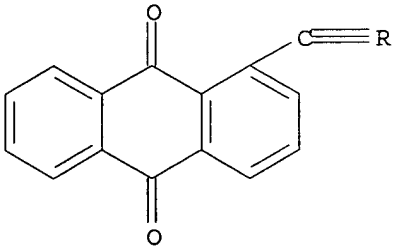
=> s l19 and l24
L25 0 FILE MEDLINE
L26 0 FILE BIOSIS
L27 0 FILE EMBASE
L28 2 FILE CAPLUS

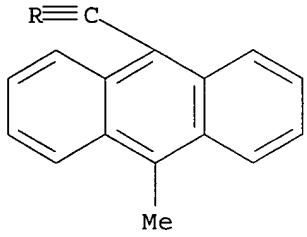
TOTAL FOR ALL FILES
L29 2 L19 AND L24

=> d 1-2 ibib abs hitstr

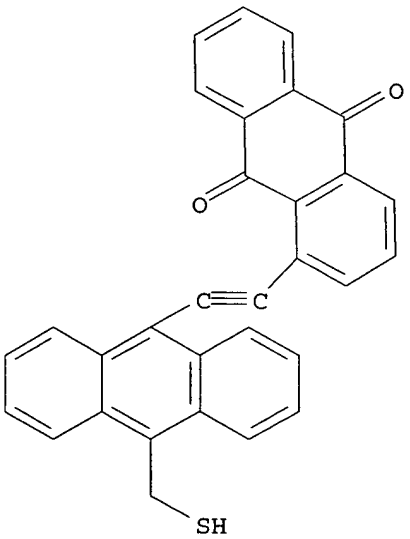
L29 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:396004 CAPLUS
DOCUMENT NUMBER: 143:106197
TITLE: Thiol-Linked Anthraquinone Anthryl Acetylene Molecule: Synthesis, Self-assembly, and Photoelectrochemical Properties
AUTHOR(S): Ma, Hong; Kang, Mun-Sik; Xu, Qing-Min; Kim, Kyoung-Soo; Jen, Alex K.-Y.
CORPORATE SOURCE: Department of Materials Science and Engineering, University of Washington, Seattle, WA, 98185-2120, USA
SOURCE: Chemistry of Materials (2005), 17(11), 2896-2903
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A novel self-assembling mol. with coplanar anthraquinonyl and anthryl moieties linked by an acetylenic unit has been designed and synthesized as an electron acceptor for efficient photocurrent generation. The high-resolution scanning tunneling microscopy (STM) images showed that the **self-assembled monolayer** (SAM) of this mol.
forms highly ordered two-dimensional (2D) arrays on Au(111) with an oblique lattice and graphite-like stacking at room temperature The electrochem.
study of this mol. and its SAM on Au showed reversible characteristics. The SAMs generated by co-assembling this acceptor with an oligo(pyrrolethiophene) donor show very promising photoelectrochem. properties. The amount of photocurrent generated (up to 1425 nA/cm2, 23.1% of quantum yield) under the illumination of 360 nm light is comparable to that obtained using a C60-based mol. as the electron acceptor (1700 nA/cm2). This result demonstrates the feasibility of using anthraquinone-anthrylacetylene-thiol linked mol. as an efficient electron acceptor for constructing a monochromatic light-to-current mol. converter.
IT **856439-52-6P**, (10-Methyl-9-anthryl)-(1-anthraquinonyl)acetylene
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(bromination and nucleophilic substitution with potassium thioacetate)

RN 856439-52-6 CAPLUS
CN 9,10-Anthracenedione, 1-[(10-methyl-9-anthracenyl)ethynyl]- (9CI) (CA INDEX NAME)





IT **856439-49-1P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(synthesis and self-assembly and photoelectrochem. properties of anthraquinone-anthrylacetylene-thiol linked mol. as electron acceptor for photocurrent generation)
RN 856439-49-1 CAPLUS
CN 9,10-Anthracenedione, 1-[[10-(mercaptomethyl)-9-anthracenyl]ethynyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:57981 CAPLUS
DOCUMENT NUMBER: 142:146457
TITLE: Bis(2-acenyl)acetylene **semiconductors**
INVENTOR(S): Gerlach, Christopher P.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

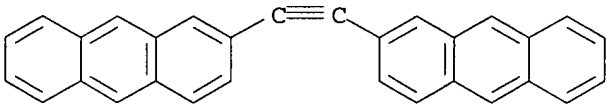
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005012090	A1	20050120	US 2003-620027	20030715
WO 2005014511	A1	20050217	WO 2004-US17108	20040602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-620027 A 20030715
OTHER SOURCE(S): MARPAT 142:146457

AB Bis(2-acenyl)acetylene compds. that are useful as stable and reproducible organic **semiconductors** are disclosed. The compds., when used as the active layer in OTFTs exhibit device characteristics, like charge-carrier mobilities and current on/off ratios, that are comparable to those of pentacene. Also described are **semiconductor** devices comprising at least one compound of the invention; and articles comprising the **semiconductor** devices such as **thin film transistors** or transistor arrays, and electroluminescent lamps.

IT **827345-90-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and properties of)
RN 827345-90-4 CAPLUS
CN Anthracene, 2,2'-(1,2-ethynediyl)bis- (9CI) (CA INDEX NAME)



=> s gerlach c?/au
L30 45 FILE MEDLINE
L31 53 FILE BIOSIS

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

```
L32          46 FILE EMBASE
L33          75 FILE CAPLUS

TOTAL FOR ALL FILES
L34         219 GERLACH C?/AU

=> s l34 and l14
L35           0 FILE MEDLINE
L36           0 FILE BIOSIS
L37           0 FILE EMBASE
L38           1 FILE CAPLUS

TOTAL FOR ALL FILES
L39           1 L34 AND L14

=> s l39 not l29
L40           0 FILE MEDLINE
L41           0 FILE BIOSIS
L42           0 FILE EMBASE
L43           0 FILE CAPLUS

TOTAL FOR ALL FILES
L44           0 L39 NOT L29

=> dis his ful

     (FILE 'HOME' ENTERED AT 08:35:32 ON 16 SEP 2005)

     FILE 'REGISTRY' ENTERED AT 08:35:47 ON 16 SEP 2005
L1               STR
L2            50 SEA SSS SAM L1
L3               STR
L4             1 SEA SUB=L2 SSS SAM L3
                 D
L5            50 SEA SSS SAM L1 AND L3
L6               STR L1
L7             3 SEA SSS SAM L6
                 D SCAN
L8             8 SEA SSS SAM L6 AND L1
                 D SCAN
L9           223 SEA SSS FUL L6 AND L1
                 D L9 QUE STAT

     FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS' ENTERED AT 08:41:29 ON 16 SEP 2005
L10            0 SEA ABB=ON  PLU=ON  L9
L11            0 SEA ABB=ON  PLU=ON  L9
L12            0 SEA ABB=ON  PLU=ON  L9
L13          133 SEA ABB=ON  PLU=ON  L9
     TOTAL FOR ALL FILES
L14          133 SEA ABB=ON  PLU=ON  L9
L15            0 SEA ABB=ON  PLU=ON  L9
L16            0 SEA ABB=ON  PLU=ON  L9
L17            0 SEA ABB=ON  PLU=ON  L9
L18          133 SEA ABB=ON  PLU=ON  L9
     TOTAL FOR ALL FILES
L19          133 SEA ABB=ON  PLU=ON  L14
L20         4656 SEA ABB=ON  PLU=ON  SEMICONDUCTOR? OR THIN FILM TRANSIST? OR
                 GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT?
                 POLYMER OR SILOXANE POLYMER
L21         2416 SEA ABB=ON  PLU=ON  SEMICONDUCTOR? OR THIN FILM TRANSIST? OR
```

```
                GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT?
                POLYMER OR SILOXANE POLYMER
L22          5197 SEA ABB=ON  PLU=ON  SEMICONDUCTOR? OR THIN FILM TRANSIST? OR
                GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT?
                POLYMER OR SILOXANE POLYMER
L23        556149 SEA ABB=ON  PLU=ON  SEMICONDUCTOR? OR THIN FILM TRANSIST? OR
                GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT?
                POLYMER OR SILOXANE POLYMER
     TOTAL FOR ALL FILES
L24        568418 SEA ABB=ON  PLU=ON  SEMICONDUCTOR? OR THIN FILM TRANSIST? OR
                GATE DIELECTRIC OR SELF ASSEMBLED MONOLAYER OR NONFLUORINAT?
                POLYMER OR SILOXANE POLYMER
L25             0 SEA ABB=ON  PLU=ON  L15 AND L20
L26             0 SEA ABB=ON  PLU=ON  L16 AND L21
L27             0 SEA ABB=ON  PLU=ON  L17 AND L22
L28             2 SEA ABB=ON  PLU=ON  L18 AND L23
     TOTAL FOR ALL FILES
L29             2 SEA ABB=ON  PLU=ON  L19 AND L24
                D 1-2 IBIB ABS HITSTR
L30            45 SEA ABB=ON  PLU=ON  GERLACH C?/AU
L31            53 SEA ABB=ON  PLU=ON  GERLACH C?/AU
L32            46 SEA ABB=ON  PLU=ON  GERLACH C?/AU
L33            75 SEA ABB=ON  PLU=ON  GERLACH C?/AU
     TOTAL FOR ALL FILES
L34           219 SEA ABB=ON  PLU=ON  GERLACH C?/AU
L35             0 SEA ABB=ON  PLU=ON  L30 AND L10
L36             0 SEA ABB=ON  PLU=ON  L31 AND L11
L37             0 SEA ABB=ON  PLU=ON  L32 AND L12
L38             1 SEA ABB=ON  PLU=ON  L33 AND L13
     TOTAL FOR ALL FILES
L39             1 SEA ABB=ON  PLU=ON  L34 AND L14
L40             0 SEA ABB=ON  PLU=ON  L35 NOT L25
L41             0 SEA ABB=ON  PLU=ON  L36 NOT L26
L42             0 SEA ABB=ON  PLU=ON  L37 NOT L27
L43             0 SEA ABB=ON  PLU=ON  L38 NOT L28
     TOTAL FOR ALL FILES
L44             0 SEA ABB=ON  PLU=ON  L39 NOT L29


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   14 SEP 2005  HIGHEST RN 863180-19-2
     DICTIONARY FILE UPDATES:  14 SEP 2005  HIGHEST RN 863180-19-2

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
     * effective March 20, 2005.  A new display format, IDERL, is now    *
```

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

* available and contains the CA role and document type information. *
*   *
****

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

FILE MEDLINE
FILE LAST UPDATED: 15 SEP 2005 (20050915/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow promt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 14 September 2005 (20050914/ED)

FILE RELOADED: 19 October 2003.

FILE EMBASE
FILE COVERS 1974 TO 15 Sep 2005 (20050915/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE CAPLUS

FILE COVERS 1907 - 16 Sep 2005 VOL 143 ISS 13
FILE LAST UPDATED: 15 Sep 2005 (20050915/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	66.55	233.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.46	-1.46

STN INTERNATIONAL LOGOFF AT 08:45:08 ON 16 SEP 2005